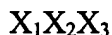


**IN THE CLAIMS:**

1-14. (Canceled)

15. (Withdrawn) A method according to claim 8 or 9 or 10 or 11 or 12 wherein X<sub>2</sub> comprises the amino acid sequence: FWYIPPSLRTLED (SEQ ID NO: 2).

16. (Currently amended) A method ~~of assaying for measuring~~ the reactivity of a subject to ~~DDM~~IDDM autoantigen, ~~said method~~ comprising 1) contacting cells derived from the subject with a peptide or chemical equivalent thereof comprising the formula:



wherein:

X<sub>1</sub> and X<sub>2</sub> may be the same or different and each is an amino acid sequence comprising from 0 to 15 naturally or non-naturally occurring amino acid residues; X<sub>2</sub> ~~is selected from~~ FFYTPKTRREAED (SEQ ID NO: 1) ~~and FWYIPPSLRTLED (SEQ ID NO: 2) or a derivative chemical equivalent thereof~~ and wherein said peptide is capable of reacting with T cells and modifying T-cell function when incubated with cells from subjects with pre-clinical or clinical IDDM, ~~with cells from said~~ and 2) determining the reactivity by an appropriate assay.

17. (Original) A method according to claim 16 wherein the cells are selected from the group comprising PBMCs, anti-coagulated whole blood and/or tissue biopsy cells.

18. (Original) A method according to claim 16 or 17 wherein an appropriate assay includes proliferation assay, cytotoxic assays, cellular reactivity or combination thereof.

19. (Withdrawn) A composition comprising a peptide or chemical equivalent thereof comprising the formula:



wherein:

X<sub>1</sub> and X<sub>3</sub> may be the same or different and each is an amino acid sequence comprising from 0 to 40 naturally or non-naturally occurring amino acid residues; X<sub>2</sub> is any amino acid sequence of from 10 to 100 residues derived from, homologous to or contiguous within amino acids 506 to 518 inclusive or derivatives thereof of human GAD 65 or amino acids 24 to 36 inclusive or derivatives thereof of human proinsulin; and wherein said peptide molecule is capable of reacting with T cells and modifying T-cell function when incubated with cells from subjects having pre-clinical or clinical Insulin-Dependent Diabetes Mellitus (IDDM) to assay reactivity of a subject to IDDM autoantigen by contacting said peptide or its chemical equivalent to cells from said subject and determining reactivity by an appropriate assay.

20. (Withdrawn) The composition according to claim 19 wherein the cells are selected from the group comprising PBMCs, anti-coagulated whole blood or tissue biopsy cells.

21. (Withdrawn) The composition according to claim 19 wherein an appropriate assay includes proliferation assay, cytotoxic assays, cellular reactivity or combinations thereof.

22. (Withdrawn) The composition according to claim 19 wherein X<sub>2</sub> comprises from 10 to 50 amino acid residues.

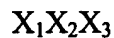
23. (Withdrawn) The composition according to claim 22 wherein X<sub>2</sub> comprises from 10 to 30 amino acid residues.

24. (Withdrawn) The composition according to claim 23 wherein X<sub>2</sub> comprises from 10 to 15 amino acid residues.

25. (Withdrawn) The composition according to claim 24 wherein X<sub>2</sub> comprises the amino acid sequence: FFYTPKTRREAED (SEQ ID NO: 1).

26. (Withdrawn) The composition according to claim 24 wherein X<sub>2</sub> comprises the amino acid sequence: FWYIPPSLRTLED (SEQ ID NO: 2).

27. (Withdrawn) A composition comprising a peptide of chemical equivalent thereof comprising the formula:



wherein:

$X_1$  and  $X_3$  may be the same or different and each is an amino acid sequence comprising from 0 to 15 naturally or non-naturally occurring amino acid residues;  $X_2$  is selected from FFYTPKTRREAED (SEQ ID NO: 1) and FWYIPPSLRTLED (SEQ ID NO: 2) or a derivative or chemical equivalent thereof and wherein said peptide is capable of reacting with T cells and modifying T-cell function when incubated with cells from subjects with pre-clinical or clinical IDDM to assay reactivity of a subject to IDDM autoantigen by contacting said peptide or its chemical equivalent with cells from said subject and determining reactivity by a proliferation assay.

28. (Withdrawn) The composition according to claim 27 wherein the cells are selected from the group comprising PBMCs, anti-coagulated whole blood or tissue biopsy cells.

29. (Withdrawn) The composition according to claim 27 wherein an appropriate assay includes proliferation assay, cytotoxic assays, cellular reactivity or combinations thereof.

30-36. (Canceled)

37. (Withdrawn) The method according to claim 8 wherein  $X_2$  consists of an amino acid sequence comprising SEQ ID NO:1.

38. (Withdrawn) The method according to claim 8 wherein  $X_2$  consists of an amino acid sequence comprising SEQ ID NO:2.

39. (Withdrawn) The composition according to claim 19 wherein  $X_2$  consists of an amino acid sequence comprising SEQ ID NO:1.

40. (Withdrawn) The composition according to Claim 19 wherein X<sub>2</sub> consists of an amino acid sequence comprising SEQ ID NO:2.